



**Bureau of Air Pollution Control**

901 SOUTH STEWART STREET SUITE 4001

CARSON CITY, NEVADA 89701-5249

p: 775-687-9349 • [ndep.nv.gov/air](http://ndep.nv.gov/air)

**Facility ID No. A2238**

**Permit No. AP3499-4249**

**CLASS II AIR QUALITY OPERATING PERMIT**

**Issued to:** REDWOOD MATERIALS, INC. (HEREINAFTER REFERRED TO AS PERMITTEE)

**Mailing Address:** 2801 LOCKHEED WAY, CARSON CITY, NV 89706

**Physical Address:** 2401 CONESTOGA DRIVE, CARSON CITY, NV 89706

**Driving Directions:** HEAD NORTH ON N. CARSON STREET AND TURN RIGHT ONTO HOT SPRINGS ROAD. TURN LEFT ONTO N. ROOP STREET. CONTINUE ONTO EMERSON DRIVE. TURN RIGHT ONTO ARROWHEAD DRIVE. TURN LEFT ONTO GONI ROAD. TURN RIGHT ONTO CONESTOGA DRIVE. FACILITY IS ON THE RIGHT.

**General Facility Location:** SECTION 33, T 16N, R 20E, MDB&M  
HA 104 – EAGLE VALLEY / CARSON CITY COUNTY  
NORTH 4,343,052 M, EAST 263,256 M, UTM ZONE 11, NAD 83

**Emission Unit List:**

**A. System 01 – Size Reduction Units**

S2.001 Size Reduction Unit 1

S2.002 Size Reduction Unit 2

**B. System 02a – Furnace Processing – Primary Operating Scenario**

S2.003a Furnace Unit

S2.004 Furnace Burner (Natural Gas)

S2.005 Post-Burner (Natural Gas)

**C. System 02b – Furnace Processing – Alternative Operating Scenario**

S2.003b Furnace Unit

S2.004 Furnace Burner (Natural Gas)

S2.005 Post-Burner (Natural Gas)

**\*\*\*\*End of Emission Unit List\*\*\*\***



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**Section I. General Provisions**

**A. Prohibited acts; penalty; establishment of violation; request for prosecution (NRS 445B.470) (*State Only Requirement*)**

1. A person shall not knowingly:
  - a. Violate any applicable provision, the terms or conditions of any permit or any provision for the filing of information;
  - b. Fail to pay any fee;
  - c. Falsify any material statement, representation or certification in any notice or report; or
  - d. Render inaccurate any monitoring device or method, required pursuant to the provisions of NRS 445B.100 to 445B.450, inclusive, or 445B.470 to 445B.640, inclusive, or any regulation adopted pursuant to those provisions.
2. Any person who violates any provision of subsection 1 shall be punished by a fine of not more than \$10,000 for each day of the violation.
3. The burden of proof and degree of knowledge required to establish a violation of subsection 1 are the same as those required by 42 U.S.C. § 7413(c), as that section existed on October 1, 1993.
4. If, in the judgment of the Director of the Department or the Director's designee, any person is engaged in any act or practice which constitutes a criminal offense pursuant to NRS 445B.100 to 445B.640, inclusive, the Director of the Department or the designee may request that the Attorney General or the district attorney of the county in which the criminal offense is alleged to have occurred institute by indictment or information a criminal prosecution of the person.
5. If, in the judgment of the control officer of a local air pollution control board, any person is engaged in such an act or practice, the control officer may request that the district attorney of the county in which the criminal offense is alleged to have occurred institute by indictment or information a criminal prosecution of the person.

**B. Visible emissions: Maximum opacity; determination and monitoring of opacity (NAC 445B.22017) (*Federally Enforceable SIP Requirement*)**

1. Except as otherwise provided in this section and NAC 445B.2202, no owner or operator may cause or permit the discharge into the atmosphere from any emission unit which is of an opacity equal to or greater than 20 percent. Opacity must be determined by one of the following methods:
  - a. If opacity is determined by a visual measurement, it must be determined as set forth in Reference Method 9 in Appendix A of 40 CFR Part 60.
  - b. If a source uses a continuous monitoring system for the measurement of opacity, the data must be reduced to 6-minute averages as set forth in 40 CFR 60.13(h).
2. The provisions of this section and NAC 445B.2202 do not apply to that part of the opacity that consists of uncombined water. The burden of proof to establish the application of this exemption is upon the person seeking to come within the exemption.
3. If the provisions of 40 CFR Part 60, Subpart D or Da apply to an emission unit, the emission unit must be allowed one 6-minute period per hour of not more than 27 percent opacity as set forth in 40 CFR 60.42(a)(2) and 40 CFR 60.42a(b).
4. The continuous monitoring system for monitoring opacity at a facility must be operated and maintained by the owner or operator specified in the permit for the facility in accordance with NAC 445B.256 to 445B.267, inclusive.

**C. Visible emissions: Exceptions for stationary sources (NAC 445B.2202) (*Federally Enforceable SIP Requirement*)**  
The provisions of NAC 445B.22017 do not apply to:

1. Smoke from the open burning described in NAC 445B.22067;
2. Smoke discharged in the course of training air pollution control inspectors to observe visible emissions, if the facility has written approval of the Commission;
3. Emissions from an incinerator as set forth in NAC 445B.2207; or
4. Emissions of stationary diesel-powered engines during warm-up for not longer than 15 minutes to achieve operating temperatures.



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**Section I. General Provisions (continued)**

**D. Odors (NAC 445B.22087) (*State Only Requirement*)**

1. No person may discharge or cause to be discharged, from any stationary source, any material or regulated air pollutant which is or tends to be offensive to the senses, injurious or detrimental to health and safety, or which in any way interferes with or prevents the comfortable enjoyment of life or property.
2. The Director shall investigate an odor when 30 percent or more of a sample of the people exposed to it believe it to be objectionable in usual places of occupancy. The sample must be at least 20 people or 75 percent of those exposed if fewer than 20 people are exposed.
3. The Director shall deem the odor to be a violation if he or she is able to make two odor measurements within a period of 1 hour. These measurements must be separated by at least 15 minutes. An odor measurement consists of a detectable odor after the odorous air has been diluted with eight or more volumes of odor-free air.

**E. Prohibited Conduct: Concealment of Emissions (NAC 445B.225) (*Federally Enforceable SIP Requirement*)**

No person may install, construct or use any device which conceals any emission without reducing the total release of regulated air pollutants to the atmosphere.

**F. Prohibited conduct: Operation of source without required equipment; removal or modification of required equipment; modification of required procedure (NAC 445B.227) (*Federally Enforceable SIP Requirement*)**

Except as otherwise provided in NAC 445B.001 to 445B.3497, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], no person may:

1. Operate a stationary source of air pollution unless the control equipment for air pollution which is required by applicable requirements or conditions of this Operating Permit is installed and operating.
2. Disconnect, alter, modify or remove any of the control equipment for air pollution or modify any procedure required by an applicable requirement or condition of the permit.

**G. Excess Emissions (NAC 445B.232) (*State Only Requirement*)**

1. Scheduled maintenance or testing or scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.3689, inclusive, must be approved in advance by the Director and performed during a time designated by the Director as being favorable for atmospheric ventilation.
2. Each owner or operator shall notify the Director of the proposed time and expected duration at least 30 days before any scheduled maintenance or testing which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled maintenance or testing must not be conducted unless the scheduled maintenance or testing is approved pursuant to subsection 1.
3. Each owner or operator shall notify the Director of the proposed time and expected duration at least 24 hours before any scheduled repairs which may result in excess emissions of regulated air pollutants prohibited by NAC 445B.001 to 445B.390, inclusive. The scheduled repairs must not be conducted unless the scheduled repairs are approved pursuant to subsection 1.
4. Each owner or operator shall notify the Director of any excess emissions within 24 hours after any malfunction or upset of the process equipment or equipment for controlling pollution or during start-up or shutdown of that equipment.



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**Section I. General Provisions (continued)**

**G. Excess Emissions (NAC 445B.232) (*State Only Requirement*) (continued)**

5. Each owner or operator shall provide the Director, within 15 days after any malfunction, upset, start-up, shutdown or human error which results in excess emissions, sufficient information to enable the Director to determine the seriousness of the excess emissions. The information must include at least the following:
  - a. The identity of the stack or other point of emission, or both, where the excess emissions occurred.
  - b. The estimated magnitude of the excess emissions expressed in opacity or in the units of the applicable limitation on emission and the operating data and methods used in estimating the magnitude of the excess emissions.
  - c. The time and duration of the excess emissions.
  - d. The identity of the equipment causing the excess emissions.
  - e. If the excess emissions were the result of a malfunction, the steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunction.
  - f. The steps taken to limit the excess emissions.
  - g. Documentation that the equipment for controlling air pollution, process equipment or processes were at all times maintained and operated, to a maximum extent practicable, in a manner consistent with good practice for minimizing emissions.
6. Each owner or operator shall ensure that any notification or related information submitted to the Director pursuant to this section is provided in a format specified by the Director.

**H. Testing and Sampling (NAC 445B.252) (*Federally Enforceable SIP Requirement*)**

1. To determine compliance with NAC 445B.001 to 445B.3497, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], before the approval or the continuance of an operating permit or similar class of permits, the Director may either conduct or order the owner of any stationary source to conduct or have conducted such testing and sampling as the Director determines necessary. Testing and sampling or either of them must be conducted and the results submitted to the Director within 60 days after achieving the maximum rate of production at which the affected facility will be operated, but not later than 180 days after initial start-up of the facility and at such other times as may be required by the Director.
2. Tests of performance must be conducted and data reduced in accordance with the methods and procedures of the test contained in each applicable subsection of this section unless the Director:
  - a. Specifies or approves, in specific cases, the use of a method of reference with minor changes in methodology;
  - b. Approves the use of an equivalent method;
  - c. Approves the use of an alternative method, the results of which the Director has determined to be adequate for indicating whether a specific stationary source is in compliance; or
  - d. Waives the requirement for tests of performance because the owner or operator of a stationary source has demonstrated by other means to the director's satisfaction that the affected facility is in compliance with the standard.
3. Tests of performance must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The owner or operator shall make available to the Director such records as may be necessary to determine the conditions of the performance test. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of a performance test unless otherwise specified in the applicable standard.
4. The owner or operator of an affected facility shall give notice to the Director 30 days before the test of performance to allow the Director to have an observer present. A written testing procedure for the test of performance must be submitted to the Director at least 30 days before the test of performance to allow the Director to review the proposed testing procedures.
5. Each test of performance must consist of at least three separate runs using the applicable method for that test. Each run must be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the runs apply. In the event of forced shutdown, failure of an irreplaceable portion of the sampling train, extreme meteorological conditions or other circumstances with less than three valid samples being obtained, compliance may be determined using the arithmetic mean of the results of the other two runs upon the Director's approval.
6. All testing and sampling will be performed in accordance with recognized methods and as specified by the Director.



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**Section I. General Provisions (continued)**

**H. Testing and Sampling (NAC 445B.252) (*Federally Enforceable SIP Requirement*) (continued)**

7. The cost of all testing and sampling and the cost of all sampling holes, scaffolding, electric power and other pertinent allied facilities as may be required and specified in writing by the Director must be provided and paid for by the owner of the stationary source.
8. All information and analytical results of testing and sampling must be certified as to their truth and accuracy and as to their compliance with all provisions of these regulations, and copies of these results must be provided to the Director no later than 60 days after the testing or sampling, or both.
9. Notwithstanding the provisions of subsection 2, the Director shall not approve an alternative method or equivalent method to determine compliance with a standard or emission limitation contained in Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations for:
  - a. An emission unit that is subject to a testing requirement pursuant to Part 60, 61 or 63 of Title 40 of the Code of Federal Regulations; or
  - b. An affected source.

**I. Permit Revision (NAC 445B.287(1)(b)) (*Federally Enforceable SIP Requirement*)**

If a stationary source is a Class II source, a revision of the operating permit or the permit to construct is required pursuant to the requirements of NAC 445B.3465 before the stationary source may be modified.

**J. Violations: Acts constituting; notice (NAC 445B.275) (*Federally Enforceable SIP Requirement*)**

1. Failure to comply with any requirement of NAC 445B.001 to 445B.3791, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive] any applicable requirement or any condition of an operating permit constitutes a violation. As required by NRS 445B.450, the Director shall issue a written notice of an alleged violation to any owner or operator for any violation, including, but not limited to:
  - a. Failure to apply for and obtain an operating permit;
  - b. Failure to construct a stationary source in accordance with the application for an operating permit as approved by the Director;
  - c. Failure to construct or operate a stationary source in accordance with any condition of an operating permit;
  - d. Commencing construction or modification of a stationary source without applying for and receiving an operating permit or a modification of an operating permit as required by NAC 445B.001 to 445B.3497, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.3477, inclusive], or a mercury operating permit to construct as required by NAC 445B.3611 to 445B.3689, inclusive;
  - e. Failure to comply with any requirement for recordkeeping, monitoring, reporting or compliance certification contained in an operating permit; or
  - f. Failure to pay fees as required by NAC 445B.327 or 445B.3689.
2. The written notice must specify the provision of NAC 445B.001 to 445B.3791, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], the condition of the operating permit or the applicable requirement that is being violated.
3. Written notice shall be deemed to have been served if delivered to the person to whom addressed or if sent by registered or certified mail to the last known address of the person.

**K. Operating permits: Imposition of more stringent standards for emissions (NAC 445B.305) (*Federally Enforceable SIP Requirement*)**

1. The Director may impose standards for emissions on a proposed stationary source that are more stringent than those found in NAC 445B.001 to 445B.3689, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], as a condition of approving an operating permit for the proposed stationary source.





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**Section I. General Provisions (continued)**

L. Contents of operating permits: Exception for operating permits to construct; required conditions (NAC 445B.315)  
(*Federally Enforceable SIP Requirement*)

1. Notwithstanding any provision of this section to the contrary, the provisions of this section do not apply to operating permits to construct.
2. The Director shall cite the legal authority for each condition contained in an operating permit.
3. An operating permit must contain the following conditions:
  - a. The term of the operating permit is 5 years.
  - b. The holder of the operating permit shall retain records of all required monitoring data and supporting information for 5 years after the date of the sample collection, measurement, report or analysis. Supporting information includes all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.
  - c. Each of the conditions and requirements of the operating permit is severable, and if any are held invalid, the remaining conditions and requirements continue in effect.
  - d. The holder of the operating permit shall comply with all conditions of the operating permit. Any noncompliance constitutes a violation and is a ground for:
    - (1) An action for noncompliance;
    - (2) Revising, revoking, reopening and revising, or terminating the operating permit by the Director; or
    - (3) Denial of an application for a renewal of the operating permit by the Director.
  - e. The need to halt or reduce activity to maintain compliance with the conditions of the operating permit is not a defense to noncompliance with any condition of the operating permit.
  - f. The Director may revise, revoke and reissue, reopen and revise, or terminate the operating permit for cause.
  - g. The operating permit does not convey any property rights or any exclusive privilege.
  - h. The holder of the operating permit shall provide the Director, in writing and within a reasonable time, with any information that the Director requests to determine whether cause exists for revising, revoking and reissuing, reopening and revising, or terminating the operating permit, or to determine compliance with the conditions of the operating permit.
  - i. The holder of the operating permit shall pay fees to the Director in accordance with the provisions set forth in NAC 445B.327 and 445B.331.
  - j. The holder of the operating permit shall allow the Director or any authorized representative, upon presentation of credentials, to:
    - (1) Enter upon the premises of the holder of the operating permit where:
      - (a) The stationary source is located;
      - (b) Activity related to emissions is conducted; or
      - (c) Records are kept pursuant to the conditions of the operating permit;
    - (2) Have access to and copy, during normal business hours, any records that are kept pursuant to the conditions of the operating permit;
    - (3) Inspect, at reasonable times, any facilities, practices, operations or equipment, including any equipment for monitoring or controlling air pollution, that are regulated or required pursuant to the operating permit; and
    - (4) Sample or monitor, at reasonable times, substances or parameters to determine compliance with the conditions of the operating permit or applicable requirements.
  - k. A responsible official of the stationary source shall certify that, based on information and belief formed after a reasonable inquiry, the statements made in any document required to be submitted by any condition of the operating permit are true, accurate and complete.



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**Section I. General Provisions (continued)**

**M. Operating permits: Assertion of emergency as affirmative defense to action for noncompliance (NAC 445B.326) (State Only Requirement)**

1. A holder of an operating permit may assert an affirmative defense to an action brought for noncompliance with a technology-based emission limitation contained in the operating permit if the holder of the operating permit demonstrates through signed, contemporaneous operating logs or other relevant evidence, that:
  - a. An emergency occurred and the holder of the operating permit can identify the cause of the emergency;
  - b. The facility was being properly operated at the time of the emergency;
  - c. During the emergency, the holder of the operating permit took all reasonable steps to minimize excess emissions; and
  - d. The holder of the operating permit submitted notice of the emergency to the Director within 2 working days after the emergency. The notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken to restore the normal operation of the facility.
2. In any action for noncompliance, the holder of an operating permit who asserts the affirmative defense of an emergency has the burden of proof.

**N. Operating permits: Revocation and reissuance (NAC 445B.3265) (State Only Requirement)**

1. An operating permit may be revoked if the control equipment is not operating.
2. An operating permit may be revoked by the Director upon determining that there has been a violation of NAC 445B.001 to 445B.390, inclusive, or the provisions of 40 CFR 52.21, or 40 CFR Part 60 or 61, Prevention of Significant Deterioration, New Source Performance Standards, and National Emission Standards for Hazardous Air Pollutants, adopted by reference in NAC 445B.221.
3. The revocation is effective 10 days after the service of a written notice, unless a hearing is requested.
4. To reissue a revoked operating permit, the holder of the revoked permit must file a new application with the Director, accompanied by the fee for an initial operating permit as specified in NAC 445B.327. An environmental review of the stationary source must be conducted as though construction had not yet commenced.

**O. Required contents of permit (NAC 445B.346) (Federally Enforceable SIP Requirement)**

In addition to the conditions set forth in NAC 445B.315, Class II operating permits must contain, as applicable:

1. Emission limitations and standards, including those operational requirements and limitations that ensure compliance with the conditions of the operating permit.
2. All requirements for monitoring, testing and reporting that apply to the stationary source.
3. A requirement that the owner or operator of the stationary source promptly report any deviations from any requirements of the operating permit.
4. The terms and conditions for any reasonably anticipated alternative operating scenarios identified by the owner or operator of the stationary source in his or her application and approved by the Director. Such terms and conditions must require the owner or operator to keep a contemporaneous log of changes from one alternative operating scenario to another.
5. A schedule of compliance for stationary sources that are not in compliance with any applicable requirement or NAC 445B.001 to 445B.3689, inclusive, [NAC adopted as of October 2016 includes NAC 445B.001 to 445B.390, inclusive], at the time the operating permit is issued, including:
  - a. Semiannual progress reports and a schedule of dates for achieving milestones;
  - b. Prior notice of and explanations for missed deadlines; and
  - c. Any preventive or corrective measures taken.

**\*\*\*End of General Provisions\*\*\***



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**Section II. General Monitoring, Recordkeeping, and Reporting Conditions**

A. Records Retention (NAC 445B.315(3)(b)) (*Federally Enforceable SIP Requirement*)

The holder of the operating permit shall retain records of all required monitoring data and supporting information for 5 years after the date of the sample collection, measurement, report or analysis. Supporting information includes all records regarding calibration and maintenance of the monitoring equipment and all original strip-chart recordings for continuous monitoring instrumentation.

B. Deviations (NAC 445B.346(3)) (*Federally Enforceable SIP Requirement*)

Under the authority of NAC 445B.346(3), and in addition to the conditions set forth in NAC 445B.315, the owner or operator of the stationary source shall promptly report to the Director any deviations from the requirements of the operating permit. The report to the Director shall include the probable cause of all deviations and any action taken to correct the deviations. For the operating permit, prompt is defined as submittal of a report within 15 days of the deviation. This definition does not alter any reporting requirements as established for reporting of excess emissions as required under NAC 445B.232 as reproduced in **Section I.G.**

**E-mail notifications to:** [eenotify@ndep.nv.gov](mailto:eenotify@ndep.nv.gov)

C. Yearly Reports (NAC 445B.315(3)(h), NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)

Under the authority of NAC 445B.315(3)(h) and NAC 445B.346(2), the Permittee will submit yearly reports including, but not limited to, throughput, production, fuel consumption, hours of operation, and emissions. These reports will be submitted on the form provided by the Bureau of Air Pollution Control for all emission units/systems specified on the form. The completed form must be submitted to the Bureau of Air Pollution Control no later than March 1 annually for the preceding calendar year.

**\*\*\*End of General Monitoring, Recordkeeping, and Reporting Conditions\*\*\***





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**Section III. General Construction Conditions**

A. Notification (NAC 445B.250; NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)

Under the authority of NAC 445B.250 and NAC 445B.346; the Director shall be notified in writing of the following for **S2.001 through S2.005**:

1. The date construction (or reconstruction as defined under NAC 445B.247) of the affected facility is commenced, postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
2. The anticipated date of initial startup of an affected facility, postmarked no more than 60 days and no less than 30 days prior to such date.
3. The actual date of initial startup of the affected facility, postmarked within 15 days after such date.
4. The date upon which demonstration of the continuous monitoring system performance commences in accordance with NAC 445B.256 to 445B.267, inclusive. Notification must be postmarked not less than 30 days before such date.

**\*\*\*\*End of General Construction Conditions\*\*\*\***

**Bureau of Air Pollution Control****Facility ID No. A2238****Permit No. AP3499-4249****CLASS II AIR QUALITY OPERATING PERMIT****Issued to:** REDWOOD MATERIALS, INC. (AS PERMITTEE)**Section IV. Specific Construction Requirements****A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2))  
(Federally Enforceable SIP Requirement)**

- Under the authority of NAC 445B.22017, NAC 445B.252, and NAC 445B.346, the Permittee, upon issuance of this operating permit, shall conduct initial opacity compliance demonstrations and/or initial performance tests within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup. The Permittee shall follow the test methods and procedures referenced in Table IV-1 and Table IV-2 below:

**Table IV-1: Initial Opacity Compliance Demonstration**

System	Emission Unit(s)	Pollutant To Be Tested	Testing Methods/Procedures
System 01 – Size Reduction Units	S2.001 and S2.002	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 02a – Furnace Processing – Primary Operating Scenario	S2.003a through S2.005	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
System 02b – Furnace Processing – Alternative Operating Scenario	S2.003b through S2.005	Opacity	Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.

**Table IV-2: Initial Performance Tests**

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 01 – Size Reduction Units	S2.001 and S2.002	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		PM <sub>10</sub> /PM <sub>2.5</sub>	Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM <sub>10</sub> and PM <sub>2.5</sub> emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.  The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 test. All particulate captured in the Method 5 test performed under this provision shall be considered PM <sub>2.5</sub> for determination of compliance.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.



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**Section IV. Specific Construction Requirements (continued)**

A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2))  
(Federally Enforceable SIP Requirement) (continued)

**Table IV-2: Initial Performance Tests**

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 02a – Furnace Processing – Primary Operating Scenario	S2.003a through S2.005 (combusting Natural Gas)	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		PM <sub>10</sub> /PM <sub>2.5</sub>	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM <sub>10</sub> and PM <sub>2.5</sub> emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM <sub>2.5</sub> for determination of compliance.
		SO <sub>2</sub>	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		NO <sub>x</sub>	Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
		CO	Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
		VOC	Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
		Dioxins and Furans	Reference Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		HF	Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.



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**Issued to:** REDWOOD MATERIALS, INC. (AS PERMITTEE)

**Section IV. Specific Construction Requirements (continued)**

A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2))  
(Federally Enforceable SIP Requirement) (continued)

**Table IV-2: Initial Performance Tests**

System	Emission Unit(s)	Pollutants To Be Tested	Testing Methods/Procedures
System 02b – Furnace Processing – Alternative Operating Scenario	S2.003b through S2.005 (combusting Natural Gas)	PM	Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		PM <sub>10</sub> /PM <sub>2.5</sub>	Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM <sub>10</sub> and PM <sub>2.5</sub> emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM <sub>2.5</sub> for determination of compliance.
		SO <sub>2</sub>	Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
		NO <sub>x</sub>	Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
		CO	Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
		VOC	Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
		Metals	Reference Method 29 test in Appendix A of 40 CFR Part 60 to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
		Dioxins and Furans	Reference Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
		HF	Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.



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**Section IV. Specific Construction Requirements (continued)**

- A. Initial Opacity Compliance Demonstration and Initial Performance Tests (NAC 445B.22017, NAC 445B.252, NAC 445B.346(2))  
(*Federally Enforceable SIP Requirement*) (continued)
2. All initial opacity compliance demonstrations and initial performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of **Section I.H. Testing and Sampling** (NAC 445B.252) of this operating permit. Material sampling must be conducted in accordance with protocols approved by the Director. All initial performance test results shall be based on the arithmetic average of three valid runs. (NAC 445B.252(5))
  3. Testing shall be conducted on the exhaust stack (post controls).
  4. Initial opacity compliance demonstrations and initial performance tests, as specified in Table IV-1 and Table IV-2 above, must be conducted under such conditions as the Director specifies to the operator of the plant based on representative performance of the affected facility. The Permittee shall make available to the Director such records as may be necessary to determine the conditions of the initial opacity compliance demonstrations and initial performance tests. Operations during periods of startup, shutdown and malfunction must not constitute representative conditions of the initial opacity compliance demonstrations and initial performance tests unless otherwise specified in the applicable standard. (NAC 445B.252(3))
  5. The Permittee shall give notice to the Director 30 days before the initial opacity compliance demonstrations and initial performance tests to allow the Director to have an observer present. A written testing procedure must be submitted to the Director at least 30 days before the initial opacity compliance demonstrations and initial performance tests to allow the Director to review the proposed testing procedures. (NAC 445B.252(4) and 40 CFR Part 60.7(a)(6))
  6. Within 60 days after completing the initial opacity compliance demonstrations and initial performance tests contained in Table IV-1 and Table IV-2 of this section, the Permittee shall furnish the Director a written report of the results. All information and analytical results of testing and sampling must be certified as to the truth and accuracy and as to their compliance with NAC 445B.001 to 445B.3689, inclusive. (NAC 445B.252(8))
  7. Initial opacity compliance demonstrations and initial performance tests required under this section that are conducted below the maximum allowable throughput, shall be subject to the Director's review to determine if the throughputs during the initial opacity compliance demonstrations and initial performance tests were sufficient to provide adequate compliance demonstration. Should the Director determine that the initial opacity compliance demonstrations and initial performance tests do not provide adequate compliance demonstration, the Director may require additional testing.

**\*\*\*End of Specific Construction Requirements\*\*\***



**Bureau of Air Pollution Control****Facility ID No. A2238****Permit No. AP3499-4249****CLASS II AIR QUALITY OPERATING PERMIT****Issued to:** REDWOOD MATERIALS, INC. (AS PERMITTEE)**Section V. Specific Operating Conditions****A. Emission Units S2.001 and S2.002**

System 01a – Size Reduction Unit 1 (Revised 03/2020, Air Case # 10301)		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.001	Size Reduction Unit 1	4,343,014	263,388
S2.002	Size Reduction Unit 2	4,343,014	263,388

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
  - a. Emissions from **S2.001 and S2.002. each**, shall be controlled by **an independent baghouses that are routed to common stack exhaust.**
  - b. Descriptive Stack Parameters  
Stack Height: 30 feet  
Stack Diameter: 2 feet  
Stack Temperature: Ambient °F  
Exhaust Flow: 16,000 actual cubic feet per minute (acfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
  - a. Hours  
(1) **S2.001 and S2.002** may operate a total of **24** hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **the exhaust stack controlling S2.001 and S2.002, combined**, the following pollutants in excess of the following specified limits:

  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **2.19** pounds per hour, nor more than **9.61** tons per year.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **2.19** pounds per hour, nor more than **9.61** tons per year.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **2.19** pounds per hour, nor more than **9.61** tons per year.
  - d. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **1.97** pounds per hour, nor more than **8.65** tons per year.
  - e. The opacity from **the exhaust stack controlling S2.001 and S2.002** shall not equal or exceed **20** percent.



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**Issued to:** REDWOOD MATERIALS, INC. (AS PERMITTEE)

**Section V. Specific Operating Conditions (continued)**

**A. Emission Units S2.001 and S2.002 (continued)**

**4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)**

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.

- a. Monitor and record the throughput, in **tons**, for **S2.001 and S2.002, each**, on a daily basis.
- b. Monitor and record the hours of operation for **S2.001 and S2.002, each**, on a daily basis.
- c. Determine the calendar year emissions by multiplying the pound per hour emission limits as specified in **A.3** of this section by the total yearly hours of operation.
- d. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouses controlling **S2.001 and S2.002, each**, on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
- f. Inspect the baghouse installed on **S2.001 and S2.002, each**, in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.

**5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)**

The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:

- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
- b. Testing shall be conducted on the exhaust stack (post controls).
- c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
- d. Method 201A in Appendix M of 40 CFR Part 51 shall be used to determine PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
- e. The Method 201A test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60. All particulate captured in the Method 5 test performed under this provision shall be considered PM<sub>2.5</sub> for determination of compliance.
- f. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
- g. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.

**Bureau of Air Pollution Control****Facility ID No. A2238****Permit No. AP3499-4249****CLASS II AIR QUALITY OPERATING PERMIT****Issued to:** REDWOOD MATERIALS, INC. (AS PERMITTEE)**Section V. Specific Operating Conditions (continued)****B. Emission Units S2.003a through S2.005**

System 02a – Furnace Processing – Primary Operating Scenario		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003a	Furnace Unit	4,342,963	263,232
S2.004	Furnace Burner (Natural Gas)	4,342,963	263,232
S2.005	Post-Burner (Natural Gas)	4,342,963	263,232

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
  - a. Emissions from **S2.003a through S2.005** shall be controlled by **Baghouse #1**. Emissions from **S2.003a and S2.004** shall also be controlled by **Post-Burner (S2.005)**. The **Post-Burner** must be operating at all times. Emissions from **S2.003a through S2.005** shall also be controlled by **Lime Dosing**.
  - b. Descriptive Stack Parameters  
Stack Height: 20 feet  
Stack Diameter: 24" x 17.25"  
Stack Temperature: 212 °F  
Exhaust Flow: 11,771.54 actual cubic feet per minute (acfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
  - a. **S2.004 and S2.005, each**, may consume only **natural gas or oxygen**.
  - b. Hours
    - (1) **S2.003a through S2.005, each**, may operate a total of **24** hours per day.
3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the Baghouse controlling S2.003a through S2.005, combined**, the following pollutants in excess of the following specified limits:

  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **0.98** pounds per hour, nor more than **3.75** tons per year.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **0.98** pounds per hour, nor more than **3.75** tons per year.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **0.98** pounds per hour, nor more than **3.75** tons per year.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **2.06** pounds per hour, nor more than **7.88** tons per year.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **4.10** pounds per hour, nor more than **15.71** tons per year.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **18.24** pounds per hour, nor more than **69.91** tons per year.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **11.20** pounds per hour, nor more than **42.91** tons per year.
  - h. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.20** pounds per hour, nor more than **0.76** tons per year.



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**Section V. Specific Operating Conditions (continued)**

**B. Emission Units S2.003a through S2.005 (continued)**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the Baghouse controlling S2.003a through S2.005, combined**, the following pollutants in excess of the following specified limits: (continued)

- i. The discharge of **dioxins and furans** to the atmosphere shall not exceed **0.0000042** pounds per hour, nor more than **0.000016** tons per year.
- j. The discharge of **HF** (hydrogen fluoride) to the atmosphere shall not exceed **2.06** pounds per hour, nor more than **7.88** tons per year.
- k. The opacity from **the exhaust stack of the Baghouse controlling S2.003a through S2.005** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.

- a. Monitor and record the date and time when operations start and stop for **System 02a**.
- b. Monitor and record the throughput, in **tons**, for **S2.003a** on a daily basis.
- c. Monitor and record the consumption rate of **natural gas** and **oxygen** on a daily basis for **S2.004 and S2.005** (in scf).
- d. Monitor and record the date and time when **S2.004 and S2.005** combust **natural gas** or **oxygen**.
- e. Monitor and record the hours of operation for **S2.003a through S2.005, each**, on a daily basis.
- f. Record the monthly hours of operation, and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined as the sum of the monthly hours of operation for the year.
- g. Determine the calendar year emissions by multiplying the pound per hour emission limits as specified in **B.3** of this section by the total yearly hours of operation.
- h. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.003a through S2.005** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
- i. Inspect the baghouse installed on **S2.003a through S2.005** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.



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**Section V. Specific Operating Conditions (continued)**

**B. Emission Units S2.003a through S2.005 (continued)**

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)  
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
  - a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
  - b. Testing shall be conducted on the exhaust stack (post controls).
  - c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
  - d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
  - e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM<sub>2.5</sub> for determination of compliance.
  - f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
  - g. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
  - h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
  - i. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
  - j. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
  - k. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
  - l. Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
  - m. Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.



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System 02b – Furnace Processing – Alternative Operating Scenario		Location UTM (Zone 11, NAD 83)	
		m North	m East
S2.003b	Furnace Unit	4,342,963	263,232
S2.004	Furnace Burner (Natural Gas)	4,342,963	263,232
S2.005	Post-Burner (Natural Gas)	4,342,963	263,232

1. Air Pollution Control Equipment (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
  - a. Emissions from **S2.003b through S2.005** shall be controlled by **Baghouse #1**. Emissions from **S2.003b and S2.004** shall also be controlled by **Post-Burner (S2.005)**. The **Post-Burner** must be operating at all times. Emissions from **S2.003b through S2.005** shall also be controlled by **Lime Dosing**.
  - b. Descriptive Stack Parameters  
Stack Height: 20 feet  
Stack Diameter: 24" x 17.25"  
Stack Temperature: 212 °F  
Exhaust Flow: 11,771.54 actual cubic feet per minute (acfm)
2. Operating Parameters (NAC 445B.346(1)) (*Federally Enforceable SIP Requirement*)
  - a. **S2.004 and S2.005, each, may consume only natural gas or oxygen.**
  - b. Hours
    - (1) **S2.003b through S2.005** may operate a total of **24** hours per day.
    - (2) **S2.003b through S2.005** may operate a total of **1,000** hours per year.
3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the Baghouse controlling S2.003b through S2.005, combined**, the following pollutants in excess of the following specified limits:

  - a. The discharge of **PM** (particulate matter) to the atmosphere shall not exceed **1.00** pounds per hour, nor more than **0.50** tons per year.
  - b. The discharge of **PM<sub>10</sub>** (particulate matter less than or equal to 10 microns in diameter) to the atmosphere shall not exceed **1.00** pounds per hour, nor more than **0.50** tons per year.
  - c. The discharge of **PM<sub>2.5</sub>** (particulate matter less than or equal to 2.5 microns in diameter) to the atmosphere shall not exceed **1.00** pounds per hour, nor more than **0.50** tons per year.
  - d. The discharge of **SO<sub>2</sub>** (sulfur dioxide) to the atmosphere shall not exceed **2.10** pounds per hour, nor more than **1.05** tons per year.
  - e. The discharge of **NO<sub>x</sub>** (oxides of nitrogen) to the atmosphere shall not exceed **4.10** pounds per hour, nor more than **2.05** tons per year.
  - f. The discharge of **CO** (carbon monoxide) to the atmosphere shall not exceed **52.41** pounds per hour, nor more than **26.20** tons per year.
  - g. The discharge of **VOCs** (volatile organic compounds) to the atmosphere shall not exceed **11.39** pounds per hour, nor more than **5.70** tons per year.
  - h. The discharge of **MHAP** (metallic hazardous air pollutants) to the atmosphere shall not exceed **0.21** pounds per hour, nor more than **0.11** tons per year.



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**Section V. Specific Operating Conditions (continued)**

**C. Emission Units S2.003b through S2.005 (continued)**

3. Emission Limits (NAC 445B.305, NAC 445B.346(1), NAC 445B. 22017) (*Federally Enforceable SIP Requirement*) (continued)

The Permittee, upon issuance of this operating permit, shall not discharge or cause the discharge into the atmosphere from the **exhaust stack of the Baghouse controlling S2.003b through S2.005, combined**, the following pollutants in excess of the following specified limits: (continued)

- i. The discharge of **dioxins and furans** to the atmosphere shall not exceed **0.0000019** pounds per hour, nor more than **0.00000095** tons per year.
- j. The discharge of **HF** (hydrogen fluoride) to the atmosphere shall not exceed **2.02** pounds per hour, nor more than **1.01** tons per year.
- k. The opacity from **the exhaust stack of the Baghouse controlling S2.003b through S2.005** shall not equal or exceed **20** percent.

4. Monitoring, Recordkeeping, and Reporting (NAC 445B.346(2)) (*Federally Enforceable SIP Requirement*)

The Permittee, upon the issuance of this operating permit, shall maintain, in a contemporaneous log, the monitoring and recordkeeping specified in this section. All records in the log must be identified with the calendar date of the record.

- a. Monitor and record the date and time when operations start and stop for **System 02b**.
- b. Monitor and record the throughput, in **tons**, for **S2.003b** on a daily basis.
- c. Monitor and record the consumption rate of **natural gas** and **oxygen** on a daily basis for **S2.004 and S2.005** (in scf).
- d. Monitor and record the date and time when **S2.004 and S2.005** combust **natural gas** or **oxygen**.
- e. Monitor and record the hours of operation for **S2.003b through S2.005, each**, on a daily basis.
- f. Record the monthly hours of operation, and the corresponding annual hours of operation for the year. The monthly hours of operation shall be determined at the end of each month as the sum of daily hours of operation for each day of the month. The annual hours of operation shall be determined as the sum of the monthly hours of operation for the year.
- g. Determine the calendar year emissions by multiplying the pound per hour emission limits as specified in **C.3** of this section by the total yearly hours of operation.
- h. Conduct and record an observation of visible emissions (excluding water vapor) on the baghouse controlling **S2.003b through S2.005** on a **monthly** basis while operating. The observer shall stand at a distance sufficient to provide a clear view of the emissions with the sun oriented to their back. If visible emissions are observed and exceed the applicable opacity standard, the Permittee shall take immediate corrective action. The Permittee shall maintain in a contemporaneous log the following recordkeeping: the calendar date of any required monitoring, results of the monthly observation of visible emissions, and any corrective actions taken.
- i. Inspect the baghouse installed on **S2.003b through S2.005** in accordance with the manufacturer's operation and maintenance manual and record the results (e.g. the condition of the filter fabric) and any corrective actions taken.



**Bureau of Air Pollution Control**

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**Permit No. AP3499-4249**

**CLASS II AIR QUALITY OPERATING PERMIT**

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**Section V. Specific Operating Conditions (continued)**

**C. Emission Units S2.003b through S2.005 (continued)**

5. Performance and Compliance Testing (NAC 445B.346(2), NAC 445B.252(1)) (*Federally Enforceable SIP Requirement*)  
The Permittee, upon issuance of this operating permit, shall conduct renewal performance testing at least 90 days prior to the expiration of this operating permit, but no earlier than 365 days from the date of expiration of this operating permit, and every 5 years thereafter, in accordance with the following:
- a. All opacity compliance demonstrations and performance tests must comply with the advance notification, protocol review, operational conditions, reporting, and other requirements of Section I.H. Testing and Sampling (NAC 445B.252) of this operating permit. All performance test results shall be based on the arithmetic average of three valid runs (NAC 445B.252(5)).
  - b. Testing shall be conducted on the exhaust stack (post controls).
  - c. Method 5 in Appendix A of 40 CFR Part 60 shall be used to determine PM emissions. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
  - d. Method 201A and Method 202 in Appendix M of 40 CFR Part 51 shall be used to determine PM<sub>10</sub> and PM<sub>2.5</sub> emissions. The sample time and sample volume collected for each test run shall be sufficient to collect enough mass to weigh accurately.
  - e. The Method 201A and 202 test required in this section may be replaced by a Method 5 in Appendix A of 40 CFR Part 60 and Method 202 in Appendix M of 40 CFR Part 51 test. All particulate captured in the Method 5 and Method 202 test performed under this provision shall be considered PM<sub>2.5</sub> for determination of compliance.
  - f. Method 6C in Appendix A of 40 CFR Part 60 shall be used to determine the sulfur dioxide concentration. Each test will be run for a minimum of one hour.
  - g. Method 7E in Appendix A of 40 CFR Part 60 shall be used to determine the nitrogen oxides concentration. Each test will be run for a minimum of one hour.
  - h. Method 9 in Appendix A of 40 CFR Part 60 shall be used to determine opacity. Opacity observations shall be conducted concurrently with the applicable performance test. The minimum total time of observations shall be six minutes (24 consecutive observations recorded at 15 second intervals), unless otherwise specified by an applicable subpart.
  - i. Method 10 in Appendix A of 40 CFR Part 60 shall be used to determine the carbon monoxide concentration. Each test will be run for a minimum of one hour.
  - j. Method 25A in Appendix A of 40 CFR Part 60 shall be used to determine the volatile organic compound concentration. Method 18 in Appendix A of 40 CFR Part 60 or Method 320 in Appendix A of CFR Part 63 may be used in conjunction with Method 25A to break out the organic compounds that are not considered VOC's by definition per 40 CFR 51.100(s). Each Method 25A test will be run for a minimum of one hour.
  - k. Method 29 test in Appendix A of 40 CFR Part 60 shall be used to determine the antimony, arsenic, beryllium, cadmium, chromium, cobalt, lead, manganese, mercury, nickel, and selenium emissions. The minimum sample volume must be 2.0 dscm (70 dscf) for each run.
  - l. Method 23 test in Appendix A of 40 CFR Part 60 shall be used to determine the dioxin and furan concentration. The sample volume for each test run shall be at least 1.7 dscm (60 dscf). Test runs must be conducted for up to two hours in an effort to collect this minimum sample.
  - m. Method 26A in Appendix A of 40 CFR Part 60 shall be used to determine the hydrogen fluoride concentration. Each test will be run for a minimum of one hour.

**\*\*\*\*End of Specific Operating Conditions\*\*\*\***



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**Section VI. Emission Caps**

A. Not Applicable

**\*\*\*End of Emission Caps\*\*\***



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**Section VII. Surface Area Disturbance Conditions**

The surface area disturbance for **Redwood Materials, Inc.** is **8.06** acres.

**A. Fugitive Dust (NAC 445B.22037) (*Federally Enforceable SIP Requirement*)**

1. No person may cause or permit the handling, transporting or storing of any material in a manner which allows or may allow controllable particulate matter to become airborne.
2. Except as otherwise provided in subsection 4, no person may cause or permit the construction, repair, demolition, or use of unpaved or untreated areas without first putting into effect an ongoing program using the best practical methods to prevent particulate matter from becoming airborne. As used in this subsection, "best practical methods" includes, but is not limited to, paving, chemical stabilization, watering, phased construction and revegetation.
3. Except as otherwise provided in subsection 4, no person may disturb or cover 5 acres or more of land or its topsoil until he has obtained an operating permit for surface area disturbance to clear, excavate, or level the land or to deposit any foreign material to fill or cover the land.
4. The provisions of subsections 2 and 3 do not apply to:
  - a. Agricultural activities occurring on agricultural land; or
  - b. Surface disturbances authorized by a permit issued pursuant to NRS 519A.180 which occur on land which is not less than 5 acres or more than 20 acres.

**\*\*\*End of Surface Area Disturbance Conditions\*\*\***





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**Section VIII. Schedules of Compliance**

A. Not Applicable

**\*\*\*\*End of Schedule of Compliance \*\*\*\***



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**CLASS II AIR QUALITY OPERATING PERMIT**

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**Section IX. Amendments**

**This permit:**

1. Is non-transferable. (NAC 445B.287.3) (*Federally Enforceable SIP Requirement*)
2. Will be posted conspicuously at or near the stationary source. (NAC 445B.318.5) (*Federally Enforceable SIP Requirement*)
3. Will expire and be subject to renewal five (5) years from: DRAFT .  
(NAC 445B.315) (*Federally Enforceable SIP Requirement*)
4. A completed application for renewal of an operating permit must be submitted to the director on the form provided by him with the appropriate fee at least 70 calendar days before the expiration date of this operating permit. (NAC 445B.3473.2) (*Federally Enforceable SIP Requirement*)
5. Any person aggrieved by a final decision of the Department may, not later than 10 days after notice of the action of the Department, appeal the decision by filing a request for a hearing before the Commission on a form 3\* with the State Environmental Commission, 901 South Stewart Street, Suite 4001, Carson City, Nevada 89701-5249.  
\*(See adopting agency for form.) (NAC 445B.890) (*State Only Requirement*)

**THIS PERMIT EXPIRES ON:** DRAFT

**Signature:** \_\_\_\_\_

**Issued by:** Ashley Taylor, P.E., GISP  
Supervisor, Permitting Branch  
Bureau of Air Pollution Control

**Phone:** (775) 687- 9330 **Date:** DRAFT

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## Class II Insignificant Activities List

Appended to Permit #AP3499-4249

Emission Unit #	Emission Unit Description
IA1.001	Chem Room Evaporator Heater
IA1.002	Heater Unit 1
IA1.003	Heater Unit 2
IA1.004	Heater Unit 3
IA1.005	Heater Unit 4
IA1.006	Heater Unit 5
IA1.007	Heater Unit 6
IA1.008	Heater Unit 7
IA1.009	Heater Unit 8
IA1.010	Heater Unit 9
IA1.011	Heater Unit 10
IA1.012	Heater Unit 11
IA1.013	Heater Unit 12
IA1.014	Heater Unit 13
IA1.015	Heater Unit 14
IA1.016	Heater Unit 15
IA1.017	Heater Unit 16
IA1.018	Heater Unit 17
IA1.019	Heater Unit 18
IA1.020	Heater Unit 19
IA1.021	Heater Unit 20
IA1.022	Heater Unit 21
IA1.023	Heater Unit 22
IA1.024	Heater Unit 23
IA1.025	Heater Unit 24
IA1.026	Heater Unit 25
IA1.027	Heater Unit 26
IA1.028	Heater Unit 27
IA1.029	Heater Unit 28
IA1.030	Heater Unit 29
IA1.031	Heater Unit 30
IA1.032	Heater Unit 31
IA1.033	Heater Unit 32
IA1.034	Heater Unit 33
IA1.035	Heater Unit 34
IA1.036	Heater Unit 35
IA1.037	Heater Unit 36
IA1.038	Heater Unit 37
IA1.039	Heater Unit 38
IA1.040	Heater Unit 39
IA1.041	Heater Unit 40
IA1.042	Heater Unit 41
IA1.043	Heater Unit 42